

CLAIMS

What is claimed is:

1. A personal mobility vehicle control system having a menu structure that is customizable so that commonly used portions of the menu structure can be grouped together, avoiding the need to frequently navigate through seldom-used portions of the menu structure.
2. A display for an electronic control system for a personal mobility vehicle, the display having a customized menu structure having one or more menu selection items that are unique to a particular user of the personal mobility vehicle.
3. The display of claim 2, wherein the customized menu structure has only menu selection items which the vehicle user intends to use.
4. The display of claim 2, wherein the customized menu structure has menu selection items which are selectively in the form of text, icons, or a combination thereof.
5. The display of claim 2, wherein the customized menu structure has menu selection items which are identified by menu labels having content that is associated with a particular action to be performed by selecting the menu selection item, and wherein the menu labels are customized so that the action is easily identified according to preferences of the user.
6. The display of claim 2, wherein the display, in addition to having a customized menu structure, has a standard non-customized menu selection item.

7. The display of claim 2, further comprising a connector for attaching an external device suitable for changing the menu structure.

8. The display of claim 7, further comprising a personal computer connected to the connector, wherein the personal computer includes an application capable of changing the customized menu structure.

9. The display of claim 7, further comprising a handheld device connected to the connector, wherein the handheld device includes an application capable of changing the customized menu structure.

10. A personal mobility vehicle comprising:
an electronic control system;
a display connected to the electronic control system, the display having a customized menu structure having at least one menu selection item that is unique to preferences of a particular user of the vehicle.

11. The vehicle of claim 10, further comprising at least one component that is controlled by the controller, the customized menu structure being customizable to include a menu selection item for controlling the component in accordance with the user's preferences.

12. The vehicle of claim 11, wherein the component is one of either a motor, an actuator, or an environmental control module.

13. The vehicle of claim 11, wherein the at least one component includes one or more actuators and one or more environmental control modules and the customized menu structure is customizable to include a menu selection item for each one of the actuators and each one of the control modules in accordance with the user's preferences.

14. The vehicle of claim 10, wherein the customized menu structure has only menu selection items which the vehicle user intends to use.

15. The vehicle of claim 10, wherein the customized menu structure has menu selection items which are selectively in the form of text, icons, or a combination thereof.

16. The vehicle of claim 10, wherein the display, in addition to having a customized menu structure, has a standard menu selection item for opening a standard non-customized menu structure.

17. The vehicle of claim 10, further comprising a connector for attaching an external device suitable for changing the menu structure.

18. The vehicle of claim 17, further comprising a personal computer connected to the connector, wherein the personal computer includes an application capable of changing the customized menu structure.

19. The vehicle of claim 17, further comprising a handheld device connected to the connector, wherein the handheld device includes an application capable of changing the customized menu structure.

20. A method for customizing a menu structure of a personal mobility vehicle for a particular user, wherein the user has one or more operation preferences, comprising the steps of:

a) providing a personal mobility vehicle having a display for displaying a menu structure, an input device, and a controller for controlling operation of the vehicle in accordance with input from the user via the input device; and

b) creating a menu structure to be displayed on the display, wherein the menu structure includes one or more menu selection items associated with the one or more operation preferences of the user, the controller controlling the operation of the vehicle according to the menu selection items selected by the user via the input device.

21. The method of claim 20, wherein the creating step includes the step of creating one or more menu selection items for one or more vehicle components.

22. The method of claim 21, wherein the one or more vehicle components are one or more motors for driving one or more drive wheels and the creating step includes the step of creating one or more menu selection items for controlling the one or more motors according to the menu selection items selected by the input device.

23. The method of claim 21, wherein the one or more vehicle components are one or more actuators and the creating step includes the step of creating one or more menu selection items for controlling the one or more actuators according to the menu selection items selected by the input device.

24. The method of claim 21, wherein the one or more vehicle components are one or more environmental control modules and the creating step includes the step of creating one or more menu selection items for controlling the one or more environmental control module according to the menu selection items selected by the input device.

25. The method of claim 21, wherein the one or more vehicle components include one or more motors, actuators, environmental control modules, or a combination thereof and the creating step includes the step of creating one or more menu selection items for each one of the motors, actuators, environmental control modules, or combination thereof according to the menu selection items selected by the input device.

26. The method of claim 20, wherein the creating step includes the step of creating a customized menu structure having one or more menu selection items which are in the form of text, icons, or a combination thereof.

27. The method of claim 20, further comprising the step of providing a standard menu selection item that, when selected, opens a standard non-customized menu structure.

28. The method of claim 20, further comprising the step of changing the customized menu structure with an external device connected to the vehicle, wherein the external device is a personal computer having an application capable of changing the customized menu structure.

29. The method of claim 20, further comprising the step of changing the customized menu structure with an external device connected to the vehicle, wherein the external device is a handheld device having an application capable of changing the customized menu structure.

30. A method for customizing a personal mobility vehicle control system menu, comprising the steps of:
providing a menu;
providing a menu selection item in the menu, wherein the menu selection item is customized for the user of the vehicle;
assigning an action message to the menu selection item; and
directing the action message to a target.

31. A programmable menu structure for a personal mobility vehicle, the menu having a structure with an ability to be rearranged according to preferences of a user.

32. The menu structure of claim 31, further comprising one or more shortcuts that point to fixed menu items.

33. The menu structure of claim 31, further comprising a display that is adapted to be attached to the menu structure for programming the menu structure.

34. The menu structure of claim 33, wherein the display mounts on the vehicle.

35. The menu structure of claim 33, wherein the display is a component of a handheld programmer.

36. The menu structure of claim 33, wherein the display is a component of a personal computer programming station.

37. The menu structure of claim 31, wherein the menu structure has one or more menu selection items that are labeled with customizable text, icons, or a combination thereof.

38. The menu structure of claim 31, wherein the menu structure has one or more menu selection items and wherein functions are programmably assigned to the menu selection items.

39. The menu structure of claim 38, wherein the menu selection items are labeled with customizable text, icons, or a combination thereof.

40. A display for an electronic control system for a personal mobility vehicle, the display having one or more menu selection items that are labeled with customizable text, icons, or a combination thereof.

41. The display of claim 40, wherein the menu selection items include menu labels in the form of text that is manually entered into the label.

42. The display of claim 40, wherein the menu selection items include menu labels selected from a list of text labels.

43. The display of claim 42, wherein the menu labels are selected from the list of text labels by dragging the text labels from the list to a location where the menu selection items appear.

44. The display of claim 40, wherein the icons are selected from a group available icons.

45. The display of claim 40, wherein the icons are selected from available icons by dragging the icons to a location where the menu selection items appear.

46. The display of claim 40, wherein the text, icons, or a combination thereof.

47. The display of claim 40, wherein functions are programmably assigned to the menu selection items.

48. The display of claim 40, wherein functions are pre-assigned to the menu selection items.

49. A menu for a personal mobility vehicle control system, the menu comprising menu items having functions programmably assigned to the menu items.